

## Scope of the BORG Project

DesignWorks

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The following are the deliverables:

1. The Polyethylene shielding, plus related structure
  - a. 40 sheets 5% Borated PE sheets, 48"x48"x1"
  - b. Support Frame
  - c. Additional support/EHS approval, regulations, room/floor upgrade
2. The source mechanism (not the Pt/Cf-plated source itself) and related hardware
  - a. Mechanism
    - i. Shaft, cam, etc.
      1. Source
        - a. Pt disk, plated with Cf (we don't supply)
        - b. Al cover foil
        - c. Source Carrier
  - b. Failsafe park position/mechanism
  - c. Collection Foil
  - d. Limit switches? Encoder?, sensors, etc.
3. Reaction (Recoil) Chamber
  - a. Al foil window
  - b. Gas inlet feed lines, fittings (preferably Al)
  - c. Gas inlet manifold
  - d. Chamber
  - e. Gas outlet
  - f. Seals
4. Gas delivery system
  - a. Fittings
  - b. Inert tubing
  - c. Secondary containment (conduit-like)
  - d. Purge/exhaust to hood
  - e. Wall mounts
  - f. Inert Regulators
  - g. Mass flowmeters, cabling
  - h. Interlock safety
  - i. EH&S regulations, etc.
5. External Storage
  - a. Shielding
  - b. Cover
6. Software (Labview) to control system
  - a. Software interface
  - b. Hardware—cables, sensors, interfaces, etc.
7. Limited documentation
  - a. Parts/Manufacturer list
  - b. Operations
  - c. Warnings, safety issues